

REMARKS

Favorable consideration and allowance are respectfully requested for claims 14, 16, and 18-31 in view of the following remarks.

The Examiner is again thanked for the careful review and consideration of this case and the notice that claims 16 and 18 are allowed.

The rejection of claims 14 and 30-31 under 35 U.S.C. § 102(b) as anticipated by van Ommering (US Patent No. 4,115,630) is respectfully traversed.

Each of claims 14 and 30-31 require two outmost negative electrodes flanked by a respective gas-permeable hydrophobic element. Claims 14 and 30 also require that the transport elements are positioned to accommodate a flow of gas through said transport elements. Claim 30 requires "means for transporting gases away from said negative electrodes, wherein said means for transporting comprises said gas-permeable, hydrophobic transport elements which are each positioned to accommodate a flow of gas through said transport elements."

The Office Action indicates that van Ommering discloses a stack of alternating negative and positive electrode layers with the stack beginning and ending with negative electrodes. The Office Action also asserts that "end plates provide means for handling the cell and thus constitute transport plates", see page 3 of the Office Action. There are no "transport plates" claimed in the present application. The Office Action then continues to state that the Vexar screens which are provided next to the end plates of van Ommering amount to transport elements, see page 3 of the Office Action. Neither the end plates nor the Vexar screens as arranged in van Ommering amount to the claimed transport elements, because no gas could ever flow through these elements, as they are arranged in van Ommering.

The function of the transport elements of the present invention is to allow charge balancing in the negative electrodes. This feature is fully described in the

present specification. In particular, the charge balancing effect is achieved by, and requires, the evolution of gas away from the negative electrodes.

As amended, claims 14, 30 and 31 recite that the transport elements are arranged so that gas may flow through the transport elements. These amendments are supported by the specification, for instance, paragraph [0010] indicates the gas permeable, hydrophobic transport element allows for the passage of the gasses of the cell atmosphere.

van Ommering describes an arrangement with compression plates 66 which are used to maintain the stack in its proper orientation and which may be made from an inert material such as polypropylene or polysulfone by compression molding. See column 6, lines 49-56. There is no teaching or suggestion that the compression plates may be gas permeable so as to offer the desired charge balancing effect in the negative electrodes.

In van Ommering, the Vexar screens sandwiched between the negative electrodes and the compression plates would not allow for the passage of gasses of the cell atmosphere and therefore not provide the desired charge balancing effect. This is because the Vexar screens abut the impermeable compression plates. Each airspace provided within the mesh of the screen would form its own three-dimensional confined cell when sandwiched between the electrode and the compression plate. The walls of the created cells would be provided by the compression plate, the screen mesh and the negative electrode. The compression plate and screen mesh would prevent the passage of gases of the cell atmosphere beyond the cell. Thus, no gas could flow through the screen, as is required of the transport elements of the present claims. In particular, no gas could enter from one side of the screen, pass through the screen and exit the opposite side of the screen, as is required for a gas to pass *through* a screen.

Moreover, without some egress to relieve gas pressure in the cell, no gas would leave the negative electrode. In essence, the Vexar screen would work as a gasket, sealed off on one side of the screen with the compression plate. The result is a multiplicity of sealed spaces rather than a transport element for gases as is presently claimed. van Ommering admits this as the reference indicates that the

Vexar screen is provided as a separator element (see col. 8, line 39). As a result, no gas would evolve from the negative electrode.

Further, the Vexar screen would not have the requisite hydrophobic properties, since, when exposed to electrolyte or any other liquid (absent the compression plate), the liquid could pass through the screen much the way water will pass through a mesh screen. Thus, when provided with the compression plate, no liquid *or gas* could flow through the assembly. The reference provides no teaching or suggestion that such a screen might be used in the manner contemplated by the present invention.

Thus, van Ommering does not teach or suggest a gas-permeable, hydrophobic transport element as is claimed. The reference therefore fails to teach each and every element of the claimed invention and reconsideration and withdrawal of this rejection are therefore respectfully requested.

The rejections of claims 19, 20, 21, 22, 23, 25-29, 24 under 35 U.S.C. § 103 as obvious over van Ommering, in view of various references, is traversed. Each of these claims is dependent either directly or indirectly from claim 14. As indicated above, van Ommering fails to teach each and every element of claim 14. The other cited various references similarly fail to teach the missing elements of claim 14. Indeed, these other references are not cited against claim 14. Accordingly, the proposed combinations of references fail to teach or suggest each and every element of the claims and these claims are not obvious over the cited combinations of references.

Reconsideration and withdrawal of these rejections are therefore respectfully requested.

CONCLUSION

In view of the foregoing, the application is respectfully submitted to be in condition for allowance, and prompt favorable action thereon is earnestly solicited.

If there are any questions regarding this response or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket No. 080449.50806US).

Respectfully submitted,

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